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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Stein A. Lundby

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QUALCOMM INCORPORATED
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EXAMINER

CHAN, RICHARD

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

05/01/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/782,751	Applicant(s) LUNDBY, STEIN A.	
	Examiner RICHARD CHAN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 11-26, 28, 29, 33, 34, 38, 39, 42 and 43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11-26, 28, 29, 33, 34, 38, 39, 42 and 43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/11/09 & 2/26/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see remarks, filed 2/10/09, with respect to the rejection(s) of claim(s) 1-4, 13-15, 17, 19, 20, 21, 23, 25-29, 34, 38, 39, and 43 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kumar et al. (US 6,434,367).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 13-15, 17, 19, 20, 21, 23, 25-29, 34, 38, 39, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann (US 6,396,867) in view of Kumar et al. (US 6,434,367).

Regarding claims 1, 13, 17, 19, 23, 25 Tiedemann teaches a remote station apparatus (element 6) comprising: a link quality estimation unit operative to generate a link quality estimate in response to a forward link power control instruction received on a forward link channel 10; (Col.7 line 19-26) and (Col.8 line 46-63) and a power control

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unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in response to the link quality estimation, wherein the reverse link power control instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station.

(Abstract) and (Col.7 line 31-57)

However the Tiedemann reference does not specifically teach wherein the forward link power control channel is a common channel that is a channel to be shared by many mobile units.

The Kumar reference however specifically teaches wherein a forward link power control common channel is implemented to transmit instruction to multi-units at one instant power control instructions. (Col.16 line 26-48)

It would have been obvious to one of ordinary skill in the art to implement a forward link power control common channel to the remote station apparatus of Tiedemann in order to send a power control signal to multiple remote stations at the same time in order to compensate for system wide conditions.

Regarding claim 2, 14, 20, Tiedemann and Kumar combined discloses the apparatus of claim 1, wherein the apparatus controls transmission power of the reverse link power control instruction on a reverse link in response to the forward link power control instruction (Col.7 line 31-57)

Regarding claim 3, 15, 21, Tiedemann and Kumar combined discloses the apparatus transmits the reverse link power control instruction on a reverse link. (Col.7 line 31-57)

Regarding claim 4, 26, Tiedemann discloses an apparatus (element 6) comprising: a determination unit 120 operative to determine a reverse link power control instruction received on a reverse link for base station transmission on a forward link; (Col.7 line 19-26) and an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a power level of the a forward link power control instruction based on the reverse link power control instruction; and a transmitter operative to transmit the forward link power control instruction on a forward link channel. (Col.8 line 46-63) & (Col.7 line 50-59)

However the Tiedemann reference does not specifically teach wherein the forward link power control channel is a common channel that is a channel to be shared by many mobile units.

The Kumar reference however specifically teaches wherein a forward link power control common channel is implemented to transmit instruction to multi-units at one instant power control instructions. (Col.16 line 26-48)

It would have been obvious to one of ordinary skill in the art to implement a forward link power control common channel to the remote station apparatus of Tiedemann in order to send a power control signal to multiple remote stations at the same time in order to compensate for system wide conditions.

Regarding claim 27, Tiedemann and Kumar combined discloses an apparatus (element 6) comprising of claim 1, wherein the forward link power control instruction was received on a forward link common channel.

Regarding claim 28, Tiedemann and Kumar combined discloses the apparatus of claim 1, wherein the link quality estimation unit is operative to generate the link quality estimation based on a received power level of the forward link power control instruction.

Regarding claim 29, Tiedemann and Kumar combined discloses an apparatus (element 6) comprising of claim 4, wherein the forward link power control instruction was received on a forward link common channel.

Regarding claim 34, 39, Tiedemann and Kumar combined discloses the method of claim 17, 23 wherein the determination comprises extracting the reverse link power control instruction from a signal received on the reverse link.

Regarding claim 38, Tiedemann and Kumar combined discloses the apparatus of claim 19, wherein the means for generating a link quality estimation unit are for generating the link quality estimation based on a received power level of the forward link power control instruction.

Regarding claim 42, Tiedemann teaches a remote station apparatus 6, comprising: a link quality estimation unit 120 operative to generate a link quality estimation in response to a forward link power control instruction received on a forward link; (Col.7 line 19-26) a power control unit coupled to the link quality estimation unit, the power control unit operative to generate a reverse link power control instruction in response to the link quality estimation; and one or more antennas configured to receive the forward link power control instruction on the forward link, wherein the reverse link power instruction includes one or more commands configured to adjust a transmit power of the forward link at a base station.

However the Tiedemann reference does not specifically teach wherein the forward link power control channel is a common channel that is a channel to be shared by many mobile units.

The Kumar reference however specifically teaches wherein a forward link power control common channel is implemented to transmit instruction to multi-units at one instant power control instructions. (Col.16 line 26-48)

It would have been obvious to one of ordinary skill in the art to implement a forward link power control common channel to the remote station apparatus of Tiedemann in order to send a power control signal to multiple remote stations at the same time in order to compensate for system wide conditions.

Regarding claim 43, Tiedemann teaches a base station apparatus, comprising: a determination unit operative to determine a reverse link power control instruction

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received on a reverse link for base station transmission on a forward link; an adjustment unit coupled to the determination unit, the adjustment unit operative to adjust a transmission power level of a forward link power control instruction based on the reverse link power control instruction, and one or more antennas configured to receive the reverse link power control instruction on the reverse link. And a transmitter operative to transmit the forward link power control instruction on a forward link channel. (Col.8 line 46-63)

However the Tiedemann reference does not specifically teach wherein the forward link power control channel is a common channel that is a channel to be shared by many mobile units.

The Kumar reference however specifically teaches wherein a forward link power control common channel is implemented to transmit instruction to multi-units at one instant power control instructions. (Col.16 line 26-48)

It would have been obvious to one of ordinary skill in the art to implement a forward link power control common channel to the remote station apparatus of Tiedemann in order to send a power control signal to multiple remote stations at the same time in order to compensate for system wide conditions.

4. Claims 11, 12, 16, 18, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tiedemann (US 6,396,867) in view of Kumar et al. (US 6,434,367) and in further view of Sawahashi (US 5,590,409).

Regarding claim 11, 18, 24, Tiedemann and Kumar combined discloses the apparatus of claim 4, however does not specifically disclose wherein the transmission power level of the forward link power control instruction is initially set to a reference value.

The Sawahashi reference however discloses wherein a CDMA system implements a reference point for power difference. Δ RSSI. In order to control the power transmission of the system.

It would have been obvious to one of ordinary skill in the art to implement the reference value as disclosed by Sawahashi in order to create a fixed point to manipulate the power of the system to correct level.

Regarding claim 12, 16, 22, Tiedemann and Kumar combined discloses the apparatus of claim 4, however does not specifically disclose wherein the link quality estimation is a SNR.

The Sawahashi reference however discloses wherein a CDMA system implements SNR as a method of determining transmission power of a mobile station.
(Col.2 line 29-39)

It would have been obvious at the time of the invention to one of ordinary skill in the art to implement the SNR as an estimation value to determine link quality with the apparatus as disclosed by Tiedemann in order to utilize the noise value as a quantity for link connectivity.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD CHAN whose telephone number is (571)272-0570. The examiner can normally be reached on Mon - Fri (9AM - 5PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571)272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nay A. Maung/
Supervisory Patent Examiner, Art Unit 2618

/Richard Chan/
Examiner, Art Unit 2618